

NOVEMBER/DECEMBER 2025

23UDA52 — SOFTWARE ENGINEERING

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define Software Engineering.
2. List any four notable changes in software development practices.
3. State cohesion.
4. Write any two advantages of a good SRS.
5. Draw the basic symbols used in Data Flow Diagrams.
6. Mention the structured design.
7. Enumerate any four types of software testing.
8. What is black-box testing?



9. Write two lines about software maintenance.
10. List any two objectives of reverse engineering.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Differentiate between programs and software products.

Or

- (b) Discuss why software engineering is important.

12. (a) Illustrate the characteristics of a good software design.

Or

- (b) Briefly explain coupling with examples.

13. (a) Elaborate SA/SD methodology with neat diagram.

Or

- (b) Describe structured analysis.

14. (a) Give brief notes on unit testing with an example.

Or

- (b) Write short notes on code review.

15. (a) Demonstrate software maintenance process models.

Or

- (b) Write brief notes on maintenance cost estimation factors.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the emergence of software engineering.
17. Discuss in detail the software requirements gathering with suitable examples.
18. Write in detail about DFDs with neat diagram.
19. Compare and contrast black-box and white-box testing with suitable examples.
20. Explain reverse engineering and its role in software maintenance.

